

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT6037277

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
ZEHAO XUE	11/20/2017
ZHOU REN	11/17/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	SNAP INC.
<b>Street Address:</b>	2772 DONALD DOUGLAS LOOP NORTH
<b>City:</b>	SANTA MONICA
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	90405
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15829572
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Email:</b>	request@slwip.com
<b>Correspondent Name:</b>	SCHWEGMAN LUNDBERG & WOESSNER P.A.
<b>Address Line 1:</b>	PO BOX 2938
<b>Address Line 4:</b>	MINNEAPOLIS, MINNESOTA 55402-0938
<b>ATTORNEY DOCKET NUMBER:</b>	4218.570US1
<b>NAME OF SUBMITTER:</b>	MICHELLE RED BEAR
<b>SIGNATURE:</b>	/Michelle Red Bear/
<b>DATE SIGNED:</b>	03/30/2020
<b>Total Attachments: 5</b>	
source=4218570US1RecordationCS#page1.tif	
source=4218570US1RecordationCS#page2.tif	
source=4218570US1RecordationCS#page3.tif	
source=4218570US1RecordationCS#page4.tif	
source=4218570US1RecordationCS#page5.tif	

RECORDATION FORM COVER SHEET  
PATENTS ONLY

Atty Ref/Docket No.: 4218.570US1

Patent and Trademark Office

To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Zehao Xue, Zhou Ren

Additional name(s) of conveying party(ies) attached?

Yes  No

3. Nature of conveyance:

Assignment  Merger  
 Security Agreement  Change of Name  
 Other

Execution Date: November 20, 2017, November 17, 2017

2. Name and address of receiving party(ies):

Name: Snap Inc.

Street Address: 2772 Donald Douglas Loop North

City: Santa Monica State: CA Zip: 90405

Country: United States of America

Additional name(s) & address(es) attached?  Yes  No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

Serial No. 15/829,572

B. Patent No.(s)

Additional numbers attached?  Yes  No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Raquel Pacheco

Address:

Schwegman Lundberg & Woessner, P.A.  
P.O. Box 2938  
Minneapolis, Minnesota 55402

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41): \$ 0.00

Enclosed

Authorized to be charged to deposit account 19-0743

8. Please charge any additional fees or credit any over payments to our Deposit Account No.: 19-0743

**DO NOT USE THIS SPACE**

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Raquel Pacheco/Reg. No. 58.401

Name of Person Signing

/Raquel Pacheco/

Signature

March 30, 2020

Date

Total number of pages including cover sheet: 5

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks  
Mail Stop Assignment Recordation Services  
P.O. Box 1450  
Alexandria, VA 22313-1450

**PATENT**  
**REEL: 052258 FRAME: 0603**

**ASSIGNMENT**

WHEREAS, Zehao Xue and Zhou Ren (hereinafter the "Undersigned") have made one or more inventions and other subject matter (hereinafter collectively referred to as the "Invention"); as described in the patent application filed on \_\_\_\_\_, assigned US application serial number \_\_\_\_\_, and titled GENERATING DATA IN A MESSAGING SYSTEM FOR A MACHINE LEARNING MODEL.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency, and adequacy of which are hereby acknowledged by the Undersigned, the Undersigned do hereby irrevocably and unconditionally:

CONVEY, ASSIGN, AND TRANSFER to Snap Inc. (the "Assignee"), a corporation of the State of Delaware, having a place of business at 63 Market Street, Venice, CA 90291, the Undersigned's entire right, title, and interest for the United States and all foreign countries and jurisdictions in and to:

the Invention which is disclosed in the above-identified application or applications;

such application or applications, and all divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other applications for a patent or patents which have been or shall be filed in the United States (including all provisional and non-provisional applications), and in all foreign countries and jurisdictions based in whole or in part on any of such Invention (including any application for a utility model or an innovation patent application);

all original and reissued patents which have been or shall be issued in the United States and all foreign countries and jurisdictions based in whole or in part on any of such Invention;

including the right to claim priority to the above-identified patent application or applications in relation to subject matter based in whole or in part on the above-identified patent application or applications and any of the foregoing including the right to file foreign applications under the provisions of any convention or treaty;

and including the right to all causes of action, remedies, and other enforcement rights related to the above-identified application or applications, including without limitation the right to sue for past, present, or future infringement, misappropriation, or violation of any and all rights related to the above-identified patent application or applications and any of the foregoing, including the right to obtain and collect damages for past, present, or future infringement;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such Invention to the Assignee;

AUTHORIZE AND REQUEST that any attorney associated with U.S. Patent and Trademark Office (USPTO) Customer No. 144407 may (directly or through his/her designee) delete, insert, or alter any information related to the above-identified patent application or applications or any of the foregoing, after execution of this Assignment;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or shall be made to others by the Undersigned, and that the full right to convey the same as herein expressed is possessed by the Undersigned;

COVENANT, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the Undersigned shall (1) execute all provisional, non-provisional, divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other patent applications for the Invention; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers for the Invention; (3) communicate to the Assignee all facts known to the Undersigned relating to the Invention and the history thereof; (4) cooperate with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any of the applications or patents for the Invention; and (5) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to such Invention in the Assignee, or for securing, maintaining and enforcing proper patent protection for the Invention;

COVENANT, that should any provision of this agreement be held unenforceable by an authority of competent jurisdiction, such a ruling shall not affect the validity and enforceability of the remaining provisions. To the extent that any such provision is found to be unenforceable, the Undersigned, when requested and without compensation shall act in good faith to substitute for such provision a new provision with content and purpose as close as possible to the provision deemed unenforceable.

THIS AGREEMENT IS TO BE BINDING on the heirs, assigns, representatives, and successors of the Undersigned, and is to extend to the benefit of the successors, assigns, and nominees of the Assignee.

AGREED as of the date of my signature below:

Assignment

Docket No: 4218.570US1

Assignors: Zehao Xue et al.

Title: GENERATING DATA IN A MESSAGING SYSTEM FOR A MACHINE LEARNING MODEL

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**Assignor:**

(Signature): / *Zehao Xue* /

Name: Zehao Xue

City/State: Los Angeles, CA

Date: 11/20/2017

**Assignment**

Docket No: 4218.570US1

Assignors: Zehao Xue et al.

Title: GENERATING DATA IN A MESSAGING SYSTEM FOR A MACHINE LEARNING MODEL

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**Assignor:**

(Signature):

/

*Zhou Ren*

/

Name: Zhou Ren

City/State: Los Angeles, CA

Date:

11/17/2017